BIXOLON®

Application Programming Guide
JPOS Driver

Rev. 3.04

STP-103III
SRP-275 / SRP-275II
SRP-330 / SRP-350 / SRP-350II
SRP-350plus / SRP-352plus
SRP-350plusII / SRP-352plusII
SRP-350III / SRP-352III
SRP-350plusIII / SRP-352plusIII
SRP-F310 / SRP-F312
SPP-R200 / SPP-R200II
SPP-R210 / SPP-R300 / SPP-R400

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1. Manual Information

This manual provides information on the BIXOLON JavaPOS driver as well as on the usage POS printer products offered by BIXOLON.

The following are terms contained in this manual.

- JDK: Sun Microsystems Java Development Kit

- JRE: Sun Microsystems Java Runtime Environment

- JavaPOS: Java Point of Sale

- JCL: JavaPOS Configuration Loader

[Reference Websites]

http://www.javapos.com : Java POS committee website

http://java.sun.com : Official Java website

http://www.bixolon.com : BIXOLON printers website

We at BIXOLON maintain ongoing efforts to enhance and upgrade the functions and quality of all our products. In following, product specifications and/or user manual content may be changed without prior notice.

2. Development environment

2-1 Communication Configuration

1) Communication Configuration for serial interface
You will set communication configuration in BIXOLON JavaPOS Setup Utility.

Printer Model	Baudrate	Printer Type	etc
STP-103III	9600/19200/38400/57600/115200	Mono Thermal	
SRP-275	9600/19200	2 Color Dot	
SRP-275II	9600/19200	2 Color Dot	
SRP-330	9600/19200/38400/57600/115200	Mono Thermal	
SRP-350	9600/19200/38400/57600/115200	Mono Thermal	
SRP-350II	9600/19200/38400/57600/115200	2 Color Thermal	
SRP-350III	9600/19200/38400/57600/115200	2 Color Thermal	
SRP-350plus	9600/19200/38400/57600/115200	2 Color Thermal	
SRP-350plusII	9600/19200/38400/57600/115200	2 Color Thermal	
SRP-350plusIII	9600/19200/38400/57600/115200	Mono Thermal	
SRP-352III	9600/19200/38400/57600/115200	2 Color Thermal	203dpi
SRP-352plus	9600/19200/38400/57600/115200	2 Color Thermal	203dpi
SRP-352plusII	9600/19200/38400/57600/115200	2 Color Thermal	203dpi
SRP-352plusIII	9600/19200/38400/57600/115200	Mono Thermal	203dpi
SRP-F310	9600/19200/38400/57600/115200	2 Color Thermal	
SRP-F312	9600/19200/38400/57600/115200	2 Color Thermal	203dpi
SPP-R200	9600/19200/38400/57600/115200	Mono Thermal	203dpi
SPP-R200II	9600/19200/38400/57600/115200	Mono Thermal	203dpi
SPP-R300	9600/19200/38400/57600/115200	Mono Thermal	203dpi
SPP-R400	9600/19200/38400/57600/115200	Mono Thermal	203dpi

- Check the default communication setting. For more details refer to the user manual included in the printer package.

3. Property / Method

3-1 Printer Type

Property value will be determined by the printer type, as shown in the below table.
(Some property values related to Receipt may be different depending on printer model.)

- 2 color dot printer list : SRP-275, SRP-275II
- 1 color thermal printer list : STP-103III, SRP-330, SRP-350, SRP-350plusIII, SRP-352plusIII, SPP-R200, SPP-R200II, SPP-R210, SPP-R300, SPP-R400
- 2 color thermal printer list : SRP-350plus, SRP-350II , SRP-350plusII, SRP-352plus, SRP-352plusII, SRP-350III, SRP-352III, SRP-F310, SRP-F312

3-2 Property Range / Default Value

3-2-1 Capability property setting value

Capability Name	2 Color Dot	1 Color Thermal	2 Color Thermal
CapCompareFirmwareVersion	FALSE	FALSE	FALSE
CapPowerReporting	TRUE	TRUE	TRUE
CapStatisticsReporting	FALSE	FALSE	FALSE
CapUpdateFirmware	FALSE	FALSE	FALSE
CapUpdateStatistics	FALSE	FALSE	FALSE
CapTransaction	TRUE	TRUE	TRUE
CapCoverSensor	TRUE	TRUE	TRUE
CapConcurrentRecSlp	FALSE	FALSE	FALSE
CapConcurrentJrnSlp	FALSE	FALSE	FALSE
CapConcurrentJrnRec	FALSE	FALSE	FALSE
CapCharacterSet	TRUE	TRUE	TRUE
CapRecUnderline	TRUE	TRUE	TRUE
CapRecPageMode	FALSE	TRUE	TRUE
CapCuncurrentPageMode	FALSE	FALSE	FALSE
CapRecStamp	FALSE	FALSE	FALSE
CapRecRotate180	TRUE	TRUE	TRUE
CapRecRight90	FALSE	TRUE	TRUE
CapRecPapercut	TRUE	TRUE	TRUE
CapRecNearEndSensor	FALSE	TRUE	TRUE
CapRecMarkFeed	FALSE	FALSE	FALSE
CapRecLeft90	FALSE	TRUE	TRUE
CapRecItalic	FALSE	FALSE	FALSE
CapRecEmptySensor	TRUE	TRUE	TRUE
CapRecDwideDhigh	TRUE	TRUE	TRUE
CapRecDwide	TRUE	TRUE	TRUE
CapRecDhigh	TRUE	TRUE	TRUE
CapRecColor	TRUE	FALSE	TRUE
CapRecCartridgeSensor	FALSE	FALSE	FALSE
CapRecBold	TRUE	TRUE	TRUE
CapRecBitmap	TRUE	TRUE	TRUE
CapRecBarCode	FALSE	TRUE	TRUE
CapRec2Color	TRUE	FALSE	TRUE
CapRecPresent	TRUE	TRUE	TRUE

3-2-2 Property default value / Range

- List Property

Model	RecLineCharsList	RecBarCode RotationList	FontTypefaceList	RecBitmapList
STP-103III	“24,32”	“”	“”	0,L90,R90,180
SRP-275	“33,40”	“”	“”	0,L90,R90,180
SRP-275II	“33,40”	“”	“”	0,L90,R90,180
SRP-330	“42,56”	“”	“”	0,L90,R90,180
SRP-350	“42,56”	“”	“”	0,L90,R90,180
SRP-350II	“42,56”	“”	“”	0,L90,R90,180
SRP-350III	“42,56”	“”	“”	0,L90,R90,180
SRP-350plus	“42,56”	“”	“”	0,L90,R90,180
SRP-350plusII	“42,56”	“”	“”	0,L90,R90,180
SRP-350plusIII	“42,56”	“”	“”	0,L90,R90,180
SRP-352III	“48,64”	“”	“”	0,L90,R90,180
SRP-352plus	“48,64”	“”	“”	0,L90,R90,180
SRP-352plusII	“48,64”	“”	“”	0,L90,R90,180
SRP-352plusIII	“48,64”	“”	“”	0,L90,R90,180
SRP-F310	“42,56”	“”	“”	0,L90,R90,180
SRP-F312	“48,64”	“”	“”	0,L90,R90,180
SRP-R200	“32,42”	“”	“”	0,L90,R90,180
SRP- R200II	“32,42”	“”	“”	0,L90,R90,180
SRP- R210	“32,42”	“”	“”	0,L90,R90,180
SRP- R300	“48,64”	“”	“”	0,L90,R90,180
SRP- R400	“69,92”	“”	“”	0,L90,R90,180

- CharacterSetList Property

Model	Value
SRP-275 SRP-275II	"437,1(Katakana),850,860,863,865,1252,866,852,858,862,864,23(Thai42),1253,1254,1257,27(Farsi),1251,737,775,31(Thai14),32(Hebrew Old),1255,34(Thai11),35(Thai18),857,928,1258,255"
STP-103III SRP-350	“437, 850, 1(Katakana),860,863,865,858, 255”
SRP-330 SRP-350plus SRP-352plus SRP-F310 / SRP-F312 SPP-R200 / SPP-R200II SPP-R210 / SPP-R300 SPP-R400	"437,1(Katakana),850,860,863,865,1252,866,852,858,862,864,23(Thai42),1253,1254,1257,27(Farsi),1251,737,775,31(Thai14),32(Hebrew Old),1255,34(Thai11),35(Thai18),855,857,928,39(Thai16),1256,255"
SRP-350II SRP-350plusII SRP-352plusII SRP-350III SRP-352III	"437,1(Katakana),850,860,863,865,1252,866,852,858,862,864,23(Thai42),1253,1254,1257,27(Farsi),1251,737,775,31(Thai14),32(Hebrew Old),1255,34(Thai11),35(Thai18),855,857,928,39(Thai16),1256,1258,42(Khmer),1250,255"

- Receipt Width and Height Property

Model	RecLineHeight	RecLineWidth	RecLinePaperCut
STP-103III	24	342	5
SRP-275	9	512	9
SRP-275II	9	512	9
SRP-330	24	512	5
SRP-350	24	512	5
SRP-350II	24	512	5
SRP-350III	24	512	5
SRP-350plus	24	512	5
SRP-350plusII	24	512	5
SRP-350plusIII	24	512	5
SRP-352III	24	576	5
SRP-352plus	24	576	5
SRP-352plusII	24	576	5
SRP-352plusIII	24	576	5
SRP-F310	24	512	5
SRP-F312	24	576	5
SPP-R200	24	384	5
SRP-R200II	24	384	5
SRP-R210	24	384	5
SRP-R300	24	576	5
SPP-R400	24	832	5

- RecLineSpacing Property

Property	Range		
	Default	Max	Min
RecLineSpacing	16	127	0

3-2-3 POSPrinter Method

Method	Value
beginInsertion	X
beginRemoval	X
changePrintSide	X
clearPrintArea	O
cutPaper	O
drawRuledLine	X
endInsertion	X
endRemoval	X
markFeed	X
pageModePrint	O (Dot, Ink type printer unsupported)
printBarCode	O
printBitmap	O
printImmediate	O
printMemoryBitmap	X
printNormal	O
printTwoNormal	X
rotatePrint	O
setBitmap	O
setLogo	O
transactionPrint	O
validateData	O

- O : Supported, X : Not supported

3-2-4 POSPrinter Escape Sequences

Escape Sequence	Value
[#]P	0~100
[#]fP	0~100
[#]sP	X
sL	X
[#]B	1~20
tL	O
bL	O
[#]lF	0~9999
[#]uF Base Pitch [inch]	O
[#]rF Maximum[inch]	X
#E	X
#R	X
#dL	X
#fT	O
[!]bC	O
[!][#]uC	O
[!]iC	X
[#]rC	O
[!]rvC	O
[#]sC	X
1C	O
2C	O
3C	O
4C	O
#hC	O
#vC	O
[#]fC	X
[!]tbC	X
[!]tpC	X
cA	O
rA	O
lA	O
[!][#]stC	X
N	O

- O : Supported, X : Not supported

3-2-5 Color bitmap printing support

BIXOLON JavaPOS Driver supports following image formats;
- GIF, JPG, BMP Image Format.
The image will be converted into monochrome or 2 colors depending on printer model.

4. Extended Functions

This section is to explain DirectIO method. This method will operate properly only with BIXOLON POS printer.

4-1 DirectIO Method

Parameter	Explanation	Type
Command	Output format	Long
pData	Number of output data / Value defined by command	Long
pString	Output Data	String

BIXOLON JavaPOS DirectIO Command

Command	Description
PTR _DI_OUTPUT	Output defined pString data
PTR_DI_MOBILE_MSR_READ	Read the MSR data
PTR_DI_MOBILE_MSR_READ_TRACK1	Get the Track 1 information from MSR data
PTR_DI_MOBILE_MSR_READ_TRACK2	Get the Track 2 information from MSR data
PTR_DI_MOBILE_MSR_READ_TRACK3	Get the Track 3 information from MSR data
PTR_DI_MOBILE_MSR_READ_CLEAR	Clear the MSR Data

PTR _DI_OUTPUT

Argument	Command	PTR_DI_OUTPUT
	pData	Null
	pString	Output data
Description	Sends data without any process after checking printer status. “pString” is not affected by “BinaryConversion”	
Return	Result Code	ResultCodeExtended
	OPOS_SUCCESS	0
	OPOS_E_CLOSED	0
	OPOS_E_CLAIMED	0
	OPOS_E_NOTCLAIMED	0
	OPOS_E_DISABLED	0
	OPOS_E_BUSY	0
	OPOS_E_ILLEGAL	0
	OPOS_E_OFFLINE	0
	OPOS_E_FAILURE	0

PTR_DI_MOBILE_MSR_READ

Argument	Command	PTR_DI_MOBILE_MSR_READ
	pData	Null
	pString	Null
Description	Read the MSR data.	
Return	Result Code	ResultCodeExtended
	OPOS_SUCCESS	0
	OPOS_E_ILLEGAL	0

PTR_DI_MOBILE_MSR_READ_TRACK

Argument	Command	PTR_DI_MOBILE_MSR_READ_TRACK1 PTR_DI_MOBILE_MSR_READ_TRACK2 PTR_DI_MOBILE_MSR_READ_TRACK3
	pData	Null
	pString	Appropriate Track information
Description	Get the Track information from MSR data.	
Return	Result Code	ResultCodeExtended
	OPOS_SUCCESS	0
	OPOS_E_ILLEGAL	0

PTR_DI_MOBILE_MSR_READ_CLEAR

Argument	Command	PTR_DI_MOBILE_MSR_READ_CLEAR
	PData	Null
	PString	Null
Description	Clear the MSR data.	
Return	Result Code	ResultCodeExtended
	OPOS_SUCCESS	0
	OPOS_E_ILLEGAL	0

4-2 DirectIOEvent Event

Not used.

5. Error Information

This section is to explain returned error information when use POSPrinter methods. For more details, please refer to the UPOS specifications.

5-1 ResultCode List

- Claim

Method	Result Code	ResultCodeExtended
Claim	JPOS_E_ILLEGAL	JPOS_EPTR_UNRECOVERABLE
		JPOS_EPTR_MECHANICAL
		JPOS_EPTR_CUTTER
		JPOS_EPTR_OVERHEAT
		JPOS_EPTR_REC_EMPTY
		JPOS_EPTR_JRN_EMPTY

- CheckHealth

Method	Result Code	ResultCodeExtended
CheckHealth	JPOS_SUCCESS	0
	JPOS_E_CLOSED	0
	JPOS_E_CLAIMED	0
	JPOS_E_DISABLED	0
	JPOS_E_ILLEGAL	0
	JPOS_E_OFFLINE	0
	JPOS_E_OFFLINE	0
	JPOS_E_FAILURE	JPOS_EPTR_UNRECOVERA BLE
		JPOS_EPTR_CUTTER
		JPOS_EPTR_MECHANICAL
		JPOS_EPTR_OVERHEAT

- ClearOutput

Method	Result Code	ResultCodeExtended
ClearOutput	JPOS_SUCCESS	0
	JPOS_E_CLOSED	0
	JPOS_E_CLAIMED	0
	JPOS_E_NOTCLAIMED	0

- DirectIO

Method	Result Code	ResultCodeExtended
DirectIO	JPOS_SUCCESS	0
	JPOS_E_CLOSED	0
	JPOS_E_CLAIMED	0
	JPOS_E_NOTCLAIMED	0
	JPOS_E_DISABLED	0
	JPOS_E_ILLEGAL	0
	JPOS_E_OFFLINE	0
		JPOS_EPTR_COVER_OPEN
	JPOS_E_FAILURE	JPOS_EPTR_UNRECOVERA BLE
		JPOS_EPTR_CUTTER
		JPOS_EPTR_MECHANICAL
		JPOS_EPTR_OVERHEAT
	JPOS_E_EXTENDED	JPOS_EPTR_COVER_OPEN
		JPOS_EPTR_JRN_EMPTY
		JPOS_EPTR_REC_EMPTY

- PrintNormal

Method	Result Code	ResultCodeExtended
PrintNormal	JPOS_SUCCESS	0
	JPOS_E_CLOSED	0
	JPOS_E_CLAIMED	0
	JPOS_E_NOTCLAIMED	0
	JPOS_E_DISABLED	0
	JPOS_E_ILLEGAL	0
	JPOS_E_OFFLINE	0
	JPOS_E_FAILURE	JPOS_EPTR_UNRECOVERA BLE
		JPOS_EPTR_CUTTER
		JPOS_EPTR_MECHANICAL
		JPOS_EPTR_OVERHEAT
	JPOS_E_EXTENDED	JPOS_EPTR_COVER_OPEN
		JPOS_EPTR_JRN_EMPTY
		JPOS_EPTR_REC_EMPTY

- PrintImmediate

Method	Result Code	ResultCodeExtended
PrintImmediate	JPOS_SUCCESS	0
	JPOS_E_CLOSED	0
	JPOS_E_CLAIMED	0
	JPOS_E_NOTCLAIMED	0
	JPOS_E_DISABLED	0
	JPOS_E_ILLEGAL	0
	JPOS_E_OFFLINE	0
	JPOS_E_FAILURE	JPOS_EPTR_UNRECOVERA BLE
		JPOS_EPTR_CUTTER
		JPOS_EPTR_MECHANICAL
		JPOS_EPTR_OVERHEAT
	JPOS_E_EXTENDED	JPOS_EPTR_COVER_OPEN
		JPOS_EPTR_JRN_EMPTY
		JPOS_EPTR_REC_EMPTY

- CutPaper

Method	Result Code	ResultCodeExtended
CutPaper	JPOS_SUCCESS	0
	JPOS_E_CLOSED	0
	JPOS_E_CLAIMED	0
	JPOS_E_NOTCLAIMED	0
	JPOS_E_DISABLED	0
	JPOS_E_ILLEGAL	0
	JPOS_E_OFFLINE	0
	JPOS_E_FAILURE	JPOS_EPTR_UNRECOVERA BLE
		JPOS_EPTR_CUTTER
		JPOS_EPTR_MECHANICAL
		JPOS_EPTR_OVERHEAT
	JPOS_E_EXTENDED	JPOS_EPTR_COVER_OPEN
		JPOS_EPTR_JRN_EMPTY
		JPOS_EPTR_REC_EMPTY

- RotatePrint

Method	Result Code	ResultCodeExtended
RotatePrint	JPOS_SUCCESS	0
	JPOS_E_CLOSED	0
	JPOS_E_CLAIMED	0
	JPOS_E_NOTCLAIMED	0
	JPOS_E_DISABLED	0
	JPOS_E_ILLEGAL	0
	JPOS_E_OFFLINE	0
	JPOS_E_FAILURE	JPOS_EPTR_UNRECOVERA BLE
		JPOS_EPTR_CUTTER
		JPOS_EPTR_MECHANICAL
		JPOS_EPTR_OVERHEAT
	JPOS_E_EXTENDED	JPOS_EPTR_COVER_OPEN
		JPOS_EPTR_JRN_EMPTY
		JPOS_EPTR_REC_EMPTY

- PrintBitmap

Method Name	Result Code	ResultCodeExtended
PrintBitmap	JPOS_SUCCESS	0
	JPOS_E_CLOSED	0
	JPOS_E_CLAIMED	0
	JPOS_E_NOTCLAIMED	0
	JPOS_E_DISABLED	0
	JPOS_E_ILLEGAL	0
	JPOS_E_OFFLINE	0
	JPOS_E_FAILURE	JPOS_EPTR_UNRECOVERA BLE
		JPOS_EPTR_CUTTER
		JPOS_EPTR_MECHANICAL
		JPOS_EPTR_OVERHEAT
	JPOS_E_NOEXIST	0
	JPOS_E_EXTENDED	JPOS_EPTR_COVER_OPEN
		JPOS_EPTR_JRN_EMPTY
		JPOS_EPTR_REC_EMPTY
		JPOS_EPTR_SLP_EMPTY
		JPOS_EPTR_TOOBIG
		JPOS_EPTR_BADFORMAT

- SetBitmap

Method	Result Code	ResultCodeExtended
SetBitmap	JPOS_SUCCESS	0
	JPOS_E_CLOSED	0
	JPOS_E_CLAIMED	0
	JPOS_E_NOTCLAIMED	0
	JPOS_E_DISABLED	0
	JPOS_E_ILLEGAL	0
	JPOS_E_OFFLINE	0
	JPOS_E_FAILURE	JPOS_EPTR_UNRECOVERA BLE
		JPOS_EPTR_CUTTER
		JPOS_EPTR_MECHANICAL
		JPOS_EPTR_OVERHEAT
	JPOS_E_NOEXIST	0
	JPOS_E_EXTENDED	JPOS_EPTR_COVER_OPEN
		JPOS_EPTR_JRN_EMPTY
		JPOS_EPTR_REC_EMPTY
		JPOS_EPTR_SLP_EMPTY
		JPOS_EPTR_TOOBIG
		JPOS_EPTR_BADFORMAT

- SetLogo

Method	Result Code	ResultCodeExtended
SetLogo	JPOS_SUCCESS	0
	JPOS_E_CLOSED	0
	JPOS_E_CLAIMED	0
	JPOS_E_NOTCLAIMED	0
	JPOS_E_DISABLED	0
	JPOS_E_ILLEGAL	0

- TransactionPrint

Method	Result Code	ResultCodeExtended
TransactionPrint	JPOS_SUCCESS	0
	JPOS_E_CLOSED	0
	JPOS_E_CLAIMED	0
	JPOS_E_NOTCLAIMED	0
	JPOS_E_DISABLED	0
	JPOS_E_ILLEGAL	0
	JPOS_E_OFFLINE	0
	JPOS_E_FAILURE	JPOS_EPTR_UNRECOVERA BLE
		JPOS_EPTR_CUTTER
		JPOS_EPTR_MECHANICAL
		JPOS_EPTR_OVERHEAT
	JPOS_E_NOEXIST	0
	JPOS_E_EXTENDED	JPOS_EPTR_COVER_OPEN
		JPOS_EPTR_JRN_EMPTY
		JPOS_EPTR_REC_EMPTY
		JPOS_EPTR_SLP_EMPTY

6. Precautions

(1) Reproduction of any part of this documentation by any means is prohibited.
(2) The contents of this documentation are subject to change without notice.
(3) Comments and notification of any mistakes in this documentation are gratefully accepted.
(4) This software cannot be used with other equipment that the specified.
(5) BIXOLON will not be responsible for any consequences resulting from the use of any information in this documentation.
(6) BIXOLON JavaPOS driver is designed to operate properly with the latest firmware of each model. If the printer doesn't operate properly, please check the firmware version and contact the manufacturer.

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